



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Shaun JORDAN et al.

Serial No.: 10/055,915

Group Art Unit: 1614

Filed: January 28, 2002

Examiner: SPIVACK, PHYLLIS G.

For: 5-HT<sub>1A</sub> RECEPTOR SUBTYPE AGONIST

D E C L A R A T I O N

Commissioner for Patents  
Washington, D. C. 20231

Sir:

Tetsuro KIKUCHI, a Japanese citizen, 157-13,  
Kawauchicho Komatsunishi, Tokushima-shi, Tokushima,  
Japan, hereby solemnly and sincerely declares:

That I am one of the co-inventors of the  
above-identified application;

That I have read and understand the Official  
Action dated September 23, 2003;

That in order to demonstrate that the compound  
of the present invention represented by the formula (1),  
wherein the bond between the 3- and 4-positions in the  
carbostyryl skeleton is a double bond, has a partial  
agonistic activity to h5-HT<sub>1A</sub> receptors, I conducted the  
following pharmacological test:

## Pharmacological test

### 1. Test compounds

7-{4-[4-(2,3-Dichlorophenyl)-1-piperazinyl]-butoxy}carbostyrl was used as "Test Compound A".

### 2. Test method

The pharmacological test was conducted by the procedures identical to those disclosed in "1. MATERIAL AND METHODS" on pages 18 to 21 of the present specification.

### 3. Test results

The test results obtained by the pharmacological test is shown in the following Table:

Table. Potency ( $EC_{50}$ ) and Intrinsic Agonist Efficacy ( $E_{max}$ ) of Test Compound A in a h5-HT<sub>1A</sub>[<sup>35</sup>S]GTP<sub>γ</sub>S CHO-cell Membrane Binding Assay

Drug	$EC_{50}$ (nM)	$E_{max}$ (%)	Goodness of Fit ( $r^2$ )
Test Compound A	1.48	81.6	0.995

#### 4. Discussion

As is clearly indicated in the above Table, Test Compound A, i.e., the compound of the formula (1) wherein the bond between the 3- and 4-positions in the carbostyryl skeleton is a double bond, also possesses a partial agonistic activity to h5-HT<sub>1A</sub> receptors.

The undersigned declarant declares further that all statements made herein of his own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Signed this 4th day of January, 2004.

Tetsuro Kikuchi  
Tetsuro KIKUCHI